REMARKS

Reconsideration and withdrawal of the rejections to the application is respectfully requested in view of the amendments, remarks, and comments herein.

I. STATUS OF THE CLAIMS

Claims 17-36 and 38-49 are pending; claims 18 and 40 have been amended; claim 37 has been cancelled. Support for the amendment can be found on page 14, in the paragraph beginning at line 24. No new matter is added.

It is submitted that the claims herewith and the claims as originally presented are and were in full compliance with the requirements of 35 U.S.C. §§101, 102, 103 and 112. The addition of the claims herein are not made for the purpose of patentability within the meaning of 35 U.S.C. §§ 101, 102, 103 or 112; but rather the addition of the claims is made simply for clarification and to round out the scope of protection to which Applicants are entitled. Furthermore, it is explicitly stated that the herewith amendments should not give rise to any estoppel, as the herewith amendments are not narrowing amendments.

II. THE DOUBLE PATENTING REJECTIONS ARE OVERCOME

Claim 37 was rejected under 35 U.S.C. §101 as claiming the same invention as that of claim 2 of U.S. Patent No. 6,159,477. Claim 37 has been cancelled, obviating the rejection.

Claims 17-36 and 38-49 rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 2, 10, 13-20 and 24-31 of U.S. Patent No. 6,159,477. A terminal disclaimer is attached. Consequently, reconsideration and withdrawal of the double patenting rejection are respectfully requested.

III. THE REJECTION UNDER 35 U.S.C. §112, 2ND PARAGRAPH, IS OVERCOME

Claims 18 and 40 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Claims 18 and 40 have been amended to clarify that the "large subunit and small subunit" are of ribonucleotide reductase. Consequently, reconsideration and withdrawal of the §112 rejection is respectfully requested.

IV. THE REJECTIONS UNDER 35 U.S.C. §103 ARE OVERCOME

Claims 17-32 and 38-49 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Haanes *et al.* (U.S. Patent No. 5,753,235 or 5,804,197), in view of Paoletti *et al.* (U.S. Patent No. 5,843,456). The rejection is traversed.

The cited art does not teach or suggest a recombinant CHV comprising and expressing at least one heterologous nucleotide sequence encoding an antigen selected from the group consisting of canine distemper virus HA, canine distemper virus F, rabies virus G, canine parvovirus VP2, parainfluenza virus type 2 HA, parainfluenza virus type 2 F, *Borrelia burgdorferi* OspA, and *Borrelia burgdorferi* OspB.

To the contrary, both Haanes *et al.* references relate only to the construction of a canine herpesvirus expression vector. Haanes *et al.* do not teach which genes to use in the expression vector. The Office Action asserts that Paoletti *et al.* involves the use of the HA or F gene of canine distemper virus, G gene of rabies virus, and the VP2 gene of canine parvovirus **in an analogous viral vector vaccine**. (Emphasis added.)

It is respectfully submitted that Paoletti *et al.* is nonanalogous art. Paoletti *et al.* relates to poxviruses, which replicate in the cytoplasm, while herpesviruses replicate in the nucleus. As a result of an interference proceeding between two applications that ultimately issued as U.S. Patent Nos. 4,769,330 (to Paoletti *et al.*) and 4,769,331 (to Roizman *et al.*), the U.S.P.T.O. recognized and acknowledged that poxvirus and herpesvirus are patentably distinct. U.S. Patent No. 4,769,330 relates to a poxvirus, vaccinia virus, whereas U.S. Patent No. 4,769,331 relates to herpesvirus. Therefore, as evidenced by the issuance of both patents, one cannot extrapolate from a poxviral system to a herpesviral system.

Claims 17-28, 33, 34 and 38-49 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Haanes *et al.* (U.S. Patent No. 5,753,235 or 5,804,197), in view of Cates *et al.* (WO 97/11093). The rejection is traversed.

The deficiencies of Haanes *et al.* are discussed above. Cates does not remedy these deficiencies; rather, Cates pertains to fusion proteins. The instant invention relates to individual antigens used in combination with each other, not fusion proteins. Therefore, there is nothing in the combination of Haanes *et al.* and Cates that teaches or suggests the claimed invention.

Claims 17-28, 35, 36 and 39-49 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Haanes *et al.* (U.S. Patent No. 5,753,235 or 5,804,197), in view of Barbour *et al.* (U.S. Patent No. 5,777,095). The rejection is traversed.

As admitted in the Office Action, Haanes *et al.* do not teach recombinant CHV with the ospA or ospB genes. Barbour *et al.* does not remedy this deficiency. Rather, Barbour *et al.* characterizes the genes encoding OspA and OspB, and suggests their use in diagnostic applications. It also suggests the use of expressed polypeptides, preferably lipidated

polypeptides, in a vaccine preparation. There is no teaching or suggestion in Barbour *et al.* contemplating the use of the ospA or ospB genes in a vaccine.

The Examiner is respectfully reminded of the case law, namely, that there must be some prior art teaching which would have provided the necessary incentive or motivation for modifying the reference teachings. *In re Laskowski*, 12 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989); *In re Obukowitz*, 27 U.S.P.Q. 2d 1063 (BOPAI 1993). Further, as stated by the Court in *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1783-1784 (Fed. Cir. 1992): "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification." Also, the Examiner is respectfully reminded that for the §103 rejection to be proper, both the suggestion of the claimed invention and the expectation of success must be founded in the prior art, and not Applicants' disclosure. *In re Dow*, 5 U.S.P.Q.2d 1529, 1531 (Fed.Cir. 1988).

Accordingly, the instant invention is not *prima facie* obvious. None of the cited references, alone or in combination, teach or suggest the desirability of a recombinant CHV comprising and expressing at least one heterologous nucleotide sequence encoding an antigen selected from the group consisting of canine distemper virus HA, canine distemper virus F, rabies virus G, canine parvovirus VP2, parainfluenza virus type 2 HA, parainfluenza virus type 2 F, *Borrelia burgdorferi* OspA, and *Borrelia burgdorferi* OspB. Therefore, reconsideration and withdrawal of the rejections under §103(a) are requested.

CONCLUSION

In view of the remarks and amendments herewith, the application is believed to be in condition for allowance, or at least in better condition for appeal. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

18. (Amended) The recombinant CHV according to claim 17 wherein the at least one heterologous nucleotide sequence is in at least one site selected from the group consisting of ORF3 (SEQ ID NO:4), ORF5 (SEQ ID NO:5), the thymidine kinase gene, and the intergenic region corresponding to genes coding for the large subunit and the small subunit of ribonucleotide reductase.

40. (Amended) The recombinant CHV according to claim 17 wherein the at least one heterologous nucleotide sequence is in the intergenic region corresponding to genes coding for the large subunit and the small subunit of ribonucleotide reductase[site].